

University of Utah

CAMPUS LEARNING CENTER FEASIBILITY STUDY MARCH 2006



PREPARED FOR:



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PROJECT JUSTIFICATION

The University has no higher mission than "to educate the individual and to discover, refine and disseminate knowledge." A building devoted wholly to this mission is long overdue and would clearly say to the State's population that:

THE UNIIVERSITY OF UTAH STRIVES TO CREATE AN ACADEMIC ENVIRONMENT WHERE THE HIGHEST STANDARDS OF SCHOLARSHIP AND PROFESSIONAL PRACTICE ARE OBSERVED, AND WHERE RESPONSIBILITIES TO STUDENTS ARE CONSCIENTIOUSLY MET.

The University's 28,000 students would all be the direct beneficiaries of a new classroom building. No fewer than 8 colleges and dozens of departments would benefit from being able to remodel current poor quality classrooms into needed growth space. In many cases, such space would be sufficient to provide programs that have no hope of building new space any time soon. This modest expansion would sustain their ability to meet their programmatic needs for the foreseeable future. The following pages identify the changing needs of the University of Utah's classroom campus and the comprehensive solution of creating a new Campus Learning Center.

THE TIME IS NOW

The primary classroom building for the University of Utah is Orson Spencer Hall (OSH), with 34 total classrooms comprised of 27,000 net square feet out of the building's total 116,148 gross square feet. OSH was built in 1955, with nearly one-half of the building's usable square footage devoted to classrooms of 40-60 capacity and one large 400 capacity Auditorium. Surprisingly, LITTLE TO NO RENOVATION has happened to OSH in the past 50 years, although the building remains as the main campus classroom building. OSH has not caught up to current classroom size, design and technology, as well, the building's outdated structural, mechanical and electrical systems and confining design and infrastructure no longer lends itself to modern teaching or office space. OSH is in desperate need of renovation and remodel, but because the 34 classrooms are so heavily scheduled and the remaining space so densely populated, it would be all but IMPOSSIBLE to remodel this building while occupied. No other campus building could accommodate the teaching load during a remodel and trailers are not considered a viable option for 27,000 nsf of OSH classroom space.

The new CAMPUS LEARNING CENTER is essential for the PHASE 1 of OSH renovation and remodel. This new structure, designed as a central state-of-the-art Campus Learning Center, would provide space to which most of the existing classrooms could relocate. With the classrooms relocated to the new facility, PHASE 2 of OSH renovation and remodel could then take place, and OSH could be completely upgraded to become the core Social and Behavioral Sciences Building, drawing the majority of its departments together into one location. By bringing the college (and related programs) together, students and faculty would benefit by increased utilization and contact with one another in modern, safe facilities.

The new Campus Learning Center also creates an opportunity for the College of Humanities to combine/link their Phase 2 Master Planned building with the new Campus Learning Center. Humanities is currently under design for Phase 1, and new building of approximately 50,000 gsf to relocate Humanities out of Carlson Hall and provide additional growth space for various Humanities Departments. Phase 2 of Humanities is planned for more offices and additional classrooms. By combining or linking Humanities Phase 2 with the new Campus Learning Center, a joint facility, LOCATED AT THE CORE OF CAMPUS, SUPPORTING THE CORE UNDERGRADUATE FUNCTIONS OF CAMPUS, would be created, enhancing the University of Utah as one of the State's flagship institutions.

CHANGING NEEDS

Teaching methods and technology have changed over the years, but the University's facilities have not kept up with these changes. The number of general purpose classrooms on main campus has decreased in the last 30 years. There has been a net decrease of 13 classrooms; from 211 to the present day total of 198. (This does not include the College of Law, The College of Pharmacy, The College of Nursing, or The School of Medicine.) Most troublesome has been the demographic shifts in class size that occurred due to the 1998 conversion from quarters to semesters. The vast majority of the University's classrooms were built to support the class size produced by the quarter system, the most common being a class size of 40-60. The semester system requires a larger class size to be accommodated in the same number of classrooms. Classroom utilization data indicates a shortage of classrooms in the 75-125 size range. In addition to this, most of the University's classrooms are woefully inadequate with respect to their ability to handle advanced technology.

Efforts to remodel classrooms across campus have not been able to keep up with the new disciplines that require teaching space to reflect current competitive trends. The University's present classrooms no longer meet current size and technology needs, and trying to upgrade existing space in older, non-ADA, non-seismic-compliant buildings has proven costly and rarely entirely satisfactory. For example, two 40 capacity flat-floored rooms with an entire wall of windows cannot be made into an 80 capacity tiered-floor computer aided teaching space. In Orson Spencer Hall (OSH), the typical 40 capacity rooms are 24' x 24' with a conventional ceiling height. Since 24' is the distance from the window wall to the central load-bearing wall (typical), when you combine the two rooms, you get an awkward, long, 24' x 48' room, with bad sight lines, no possibility of tiered floors, and light glare from the windows making it difficult to configure the rooms for computer use.

A NEW CAMPUS LEARNING CENTER

A consolidated and interdisciplinary core teaching facility, centrally located on campus, would benefit the entire University undergraduate teaching program. A location east of Orson Spencer Hall would give students coming from the Ft. Douglas residential area, and those coming off the TRAX stops at the Legacy Bridge and the Huntsman Center, a convenient and accessible classroom location. Such a centralized location would serve the University's 7 largest Colleges whose departmental space and students dominate this part of campus. The benefits of a new centrally located Campus Learning Center would be immediate to students and faculty.

The Campus Learning Center would replace most of Orson Spencer Hall classrooms, and would also replace another 15 or more outdated, inferior classrooms throughout central campus. By pulling such classrooms out of buildings that house offices for Business, Education, Health, Humanities and Social and Behavioral Sciences Colleges, the University would gain the space needed to teach appropriately in the 21st century and could remodel inferior classrooms around campus into badly needed department space for several Colleges.

The proposed new Campus Learning Center would ideally house 45-50 state of the art classrooms and 3 large computing areas for formal and informal learning applications. This building could also house the University's Instructional Media Services (IMS) department to serve as a building anchor. They would operate and maintain all aspects of the "high-tech" features of this building. IMS currently occupies 7,000 net square feet in Milton Bennion Hall (which houses the College of Education). Their existing space could then be converted to the specialized office and support needs faced by the College of Education as they continue to meet the growing needs of training and serving education in the State. An additional 10,000 square feet would be set aside for other University departments whose functions would define this building as a core, central teaching facility for the main campus. Such departments would have an interdisciplinary mission and could possibly include the Tutoring Center, the Center for Teaching Excellence, Distance Education, various advising functions, the Scheduling Office and the University Writing Program.

LOCATION

The site for the new Campus Learning Center will need to accommodate a 150,000 GSF building, not exceeding 3-4 levels above grade. The new Campus Learning Center would most likely be placed in the old dorm area along the pedestrian mall that runs east/west from the Legacy Bridge down to the Marriot Library.

Another consideration for a possible site was adjacent to Milton Bennion Hall. The site study provided for this site concluded a 150,000 GSF, 3-level building would not fit on this site.

A complete Site Analysis is provided in Section 5 Site Analysis.

OVERALL PROJECT COSTS

The following is a summary of the construction costs for the new Campus Learning Center.

Total Construction Costs FY2006 \$28,050,000

Total Construction Costs

Inflated to FY 2008 \$31,416,000

Soft Costs Based on FY 2008 \$11,148,679

Total Project Costs FY 2008 \$42,564,679

A complete Order of Magnitude Construction Cost Estimate is provided in Section 6.

POSSIBLE FUNDING

Since a Campus Learning Center would benefit so many Colleges, it would be in the best interest for the Colleges to help raise funds for such a facility. It is hoped that \$5-10 million could come from the Colleges' or the University's Capital Campaign, given the broad appeal for this building. The State of Utah would be asked to fund the remainder.

In discussions with the seven Colleges interviewed for this feasibility study, the Colleges feel strongly that the entire project costs be funded by the State of Utah. Individual Colleges would only be willing to participate with fund raising if it did not "take-away" from their current fund-raising efforts for improvements to their individual College needs. (Capital improvements to renovate or add to their existing space.) Colleges would also be raising funds to renovate their replaced "surplus" classrooms in their respective buildings. These classrooms would be available for more centralized, program specific use once the new Campus Learning Center is available for general classroom functions.



EXISTING CLASSROOMS

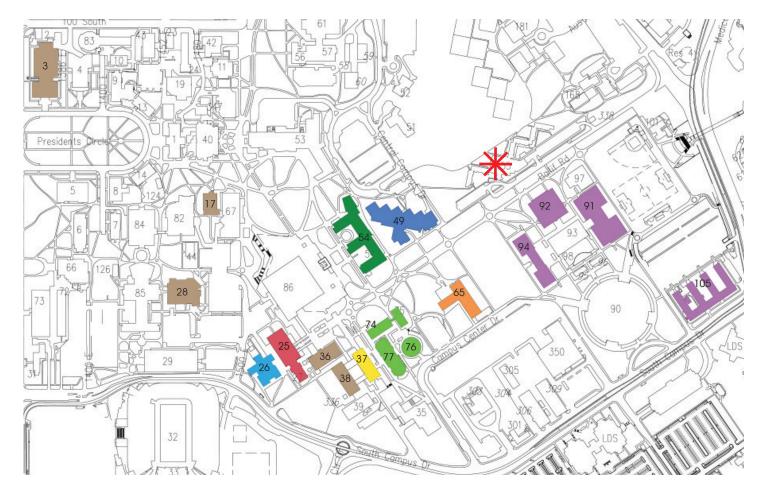
This feasibility study included interviews with 7 Colleges that would potentially benefit from a new Campus Learning Facility. The following is a summary of the General Classroom space in the buildings of these Colleges.

COLLEGE OF AF	RCHITECTU	re and i	PLANNING	
Building 03 Arc Arc Arc	ch Room ch Room ch Room ch Room	227 228 229	Capacity Capacity Capacity Capacity	93 30 45 35
COLLEGE OF BUSI		D ECCLES	SCHOOL OF	BUSINESS)
Building 07 BU	C Room	106 107 108 203 206 207 208 209 210 211 212 301 302	Capacity	62 56 56 40 56 32 32 42 14 48 50 56 60 40
FA FA	C Room C Room '6 MB Room MB Room MB MHGH	304 305 101 102	Capacity Capacity Capacity Capacity Capacity Capacity	50 40 56 108 110 331
FA FA	MB Room MB Room MB Room MB Room MB Room	202 203 204	Capacity Capacity Capacity Capacity Capacity	108 107 82 76 67
	77 RCC Room RCC Room		Capacity Capacity	102 102
COLLEGE OF ED				
Building 06 ME ME ME ME ME	BH Room BH Room BH Room BH Room BH Room	102 104 105 111	Capacity Capacity Capacity Capacity Capacity Capacity Capacity	45 45 45 45 50 65

	MBH MBH MBH	Room 113 Room 114 Room 302 Room 306	Capacity Capacity Capacity Capacity	75 45 75 50
COLLEGE OF Building		RTS		
	ART	Room 158	Capacity	83
Building	-	Auditorium	Camacity	416
COLLEGE OF				
Building	gs 091,0 HPR E HPR N	92,094 Room 206 Room 218 Room 225 Room 226 Room 236 Room 237 Room 238 Room 242 Room 117	Capacity Capacity Capacity Capacity Capacity Capacity Capacity Capacity Capacity	186 50 40 28 59 14 106 40 78
Building	105 Annex Annex	Room 1003 Room 2036	Capacity Capacity	30 30
COLLEGE OF		NITIES		
Building	049 LNCO LNCO	Room 1100 Room 1110	Capacity Capacity	73 135
		AL AND BEHAV	IORAL SCIEN	ICE
Building	BEH S	Room 102 Room 104 Room 105 Room 106 Room 107 Room 108 Room 109 Room 110 Room 111 Room 112 Room 113 Room 114 Room 115 Room 116	Capacity	70 42 42 42 42 40 110 42 99 42 70 70

COLLEGE OF SC	CIAL WORK		
Building 02	6		
SW	Room 131	Capacity	56
SW	Room 132	Capacity	30
SW	Room 133	Capacity	60
SW	AUD	Capacity	232
SW	Room 135	Capacity	30
SW	Room 136	Capacity	30
SW	Room 137	Capacity	60

ORSON SPENCER H	IALL		
Building 054			
OSH	Room WPRA	Capacity	405
OSH	Room 101	Capacity	24
OSH	Room 102	Capacity	55
OSH	Room 103	Capacity	35
OSH	Room 104	Capacity	55
OSH	Room 105	Capacity	20
OSH	Room 106	Capacity	50
OSH	Room 107	Capacity	60
OSH	Room 111	Capacity	50
OSH	Room 113	Capacity	60
OSH	Room 130	Capacity	40
OSH	Room 131	Capacity	40
OSH	Room 132	Capacity	40
OSH	Room 133	Capacity	40
OSH	Room 134	Capacity	40
OSH	Room 135	Capacity	40
OSH	Room 136	Capacity	40
OSH	Room 137	Capacity	40
OSH	Room 138	Capacity	40
OSH	Room 174	Capacity	50
OSH	Room 175	Capacity	120
OSH	Room 202	Capacity	113
OSH	Room 204	Capacity	45
OSH	Room 229	Capacity	18
OSH	Room 230	Capacity	18
OSH	Room 231	Capacity	40
OSH	Room 232	Capacity	40
OSH	Room 233	Capacity	40
OSH	Room 234	Capacity	40
OSH	Room 235	Capacity	40
OSH	Room 236	Capacity	40
OSH	Room 237	Capacity	40
OSH	Room 238	Capacity	40



PARTIAL CAMPUS MAP

COLLEGE OF ARCHITECTURE AND PLANNING

COLLEGE OF BUSINESS

COLLEGE OF EDUCATION

COLLEGE OF FINE ARTS

COLLEGE OF HEALTH

COLLEGE OF HUMANITIES

COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCE

COLLEGE OF SOCIAL WORK

ORSON SPENCER HALL

SITE LOCATION

ORSON SPENCER HALL (OSH)

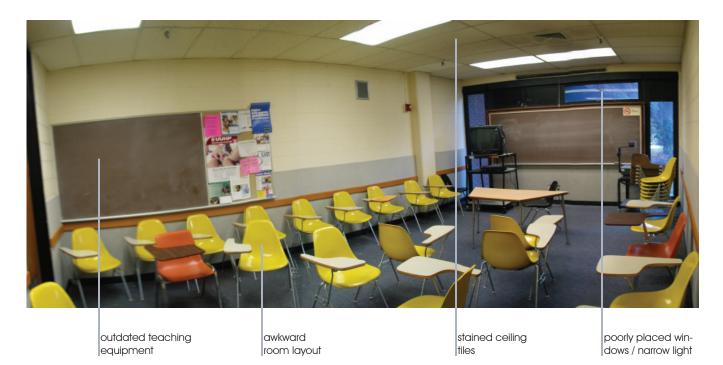
The University's primary classroom building, OSH, was built in 1955 with 34 classrooms, comprised of 27,000 NSF of the building's total 116,148 GSF. It was intended to serve the teaching needs of increased enrollments due to returning WWII servicemen and the baby boom. Nearly one half of the building's usable square footage was devoted to classrooms of 40-60 capacity and one large 400 capacity auditorium. The rest of the space houses the administrative, faculty and support space for Humanities and Social and Behavioral Sciences. Surprisingly, little has changed in the last 50 years; OSH is still the campus' main classroom building and home to over 10 departments in the original colleges. Current classroom size, design and technology in OSH have not changed. The building, with its outdated utility systems, confining design and infrastructure, no longer lends itself to modern teaching or office space. Because the 34 classrooms are so heavily scheduled and the other space so densely populated, it has been difficult, if not impossible, to plan the remodel of this building while occupied. No other campus building can accommodate the teaching load during a remodel, and trailers are not considered a viable option.

Orson Spencer Hall has been on the State's capital improvement list for over 12 years. The best approach to remodeling OSH would be to do it in two phases. Phase 1 of OSH remodel needs to be a new structure designed as a central state-of-the-art Campus Learning Center, into which most of the existing classrooms would relocate. With the classrooms relocated to a new facility, OSH could then be completely remodeled to become the core Social and Behavioral Sciences building, drawing most of its department together in one location. Humanities would relocate to their new building, currently in Programming. With the entire classroom space freed up, a complete renovation could be accomplished in phases, greatly decreasing the inconvenience and difficulty of using the building during construction. By bringing related programs together, students and faculty would benefit by increased utilization and contact with one another in an updated, safe facility.

PHOTOS OF EXISTING CLASSROOMS

The majority of classrooms in OSH and each of the Colleges' respective buildings are outdated, drab and uninspiring. Orson Spencer Hall is over 50 years old and has had no significant upgrades or renovations. Other facilities are even older. For example, both the Stewart and Mines buildings are so old that they were constructed without elevators, making many of their classrooms completely inaccessible to persons with disabilities. Other serious issues include the over use of portable equipment in tight classroom spaces, poor seating arrangements, poor lighting, insufficient ventilation, and inappropriate/noisy wall materials, to name a few. While these elements contribute to a dull classroom environment several of them are also serious safety hazards for egress purposes.

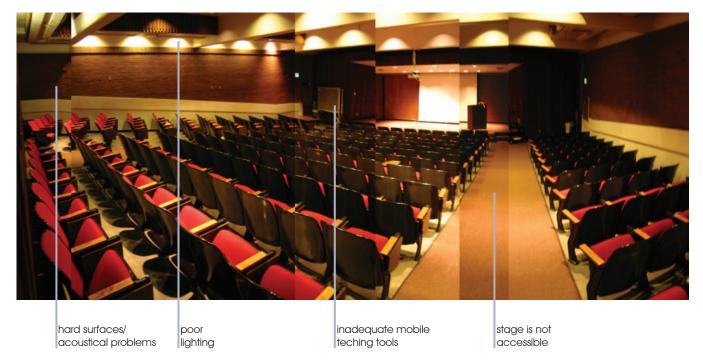
The following photos were taken of existing classrooms throughout the campus and serve to illustrate the uninspiring nature of the current teaching facilities. Along with each photograph are several specific examples of problems and issues that contribute to this feeling. These images demonstrate the need for the new Campus Learning Center and the high technology, state of the art teaching facilities it will provide. They may also serve as a reference during the Programming and Design phases of this project.



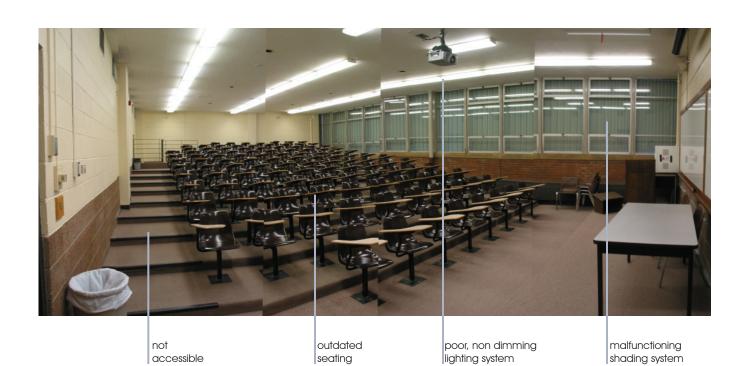
SOCIAL WORK (SW) ROOM 135
Room Type: Lecture Capacity: 30



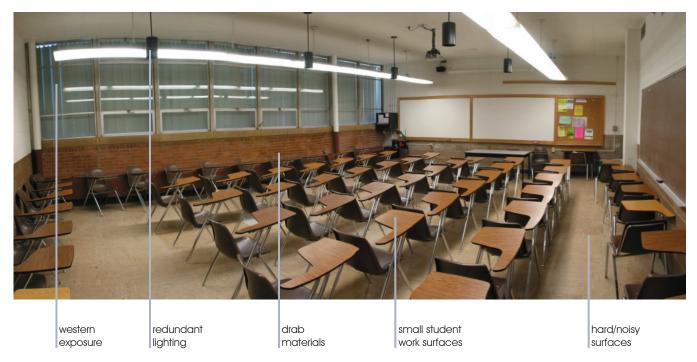
SOCIAL WORK (SW) ROOM 136
Room Type: Lecture Capacity: 30



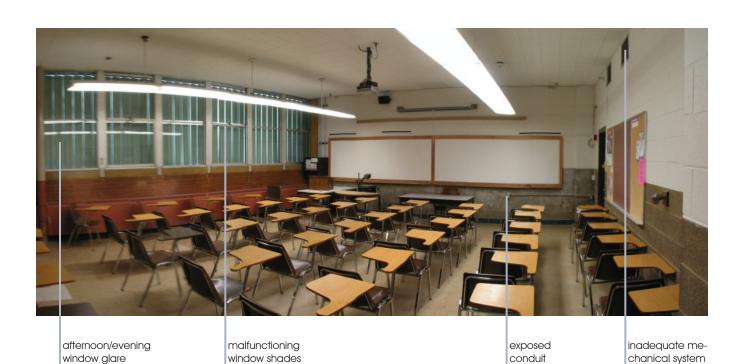
SOCIAL WORK (SW) ROOM 134
Room Type: Auditorium Capacity: 232



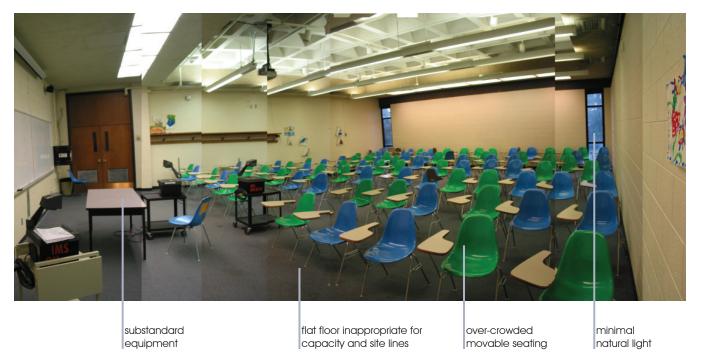
ORSON SPENCER HALL (OSH) ROOM 202 Room Type: Lecture Capacity: 113



ORSON SPENCER HALL (OSH) ROOM 107 Room Type: Lecture Capacity: 68



ORSON SPENCER HALL (OSH) ROOM 111 Room Type: Lecture Capacity: 50



BEHAVIORAL SCIENCE AND HEALTH (BEH S) ROOM 112 Room Type: Lecture Capacity: 110



BUSINESS CLASSROOM BUILDING (BU C) ROOM 209 Room Type: Lecture Capacity: 14



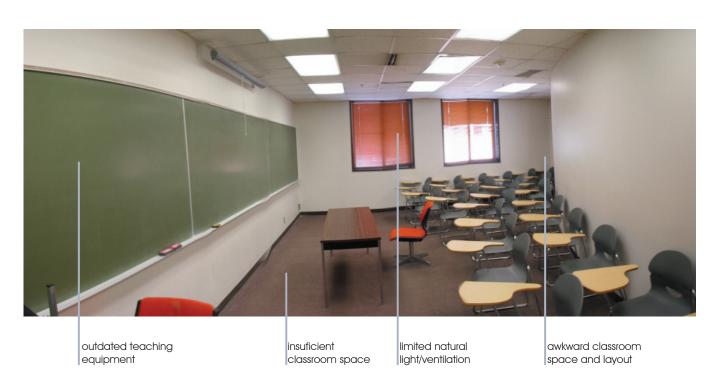
FRANCIS A MADSEN BUILDING (FAMB) ROOM 101 Room Type: Lecture Capacity: 108



FRANCIS A MADSEN BUILDING (FAMB) ROOM 102 Room Type: Lecture Capacity: 110



JOHN WIDSTOE BUILDING (JWB) ROOM 208 Room Type: Lecture Capacity: 28



JOHN WIDSTOE BUILDING (JWB) ROOM 333 Room Type: Lecture Capacity: 28



MILTON BENNION HALL (MBH) ROOM 114 Room Type: Lecture Capacity: 45

ing system

curtains



equipment

safety/egress hazard

MARRIOTT CENTER FOR DANCE (MCD) ROOM 230 Room Type: Lecture Capacity: 30

spacial layout

arrangement

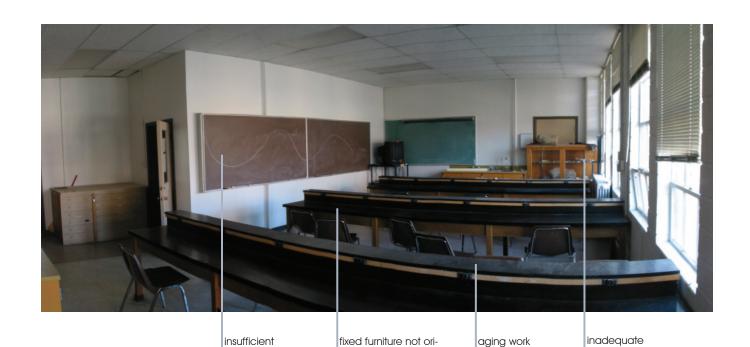
surfaces



lighting

MINES BUILDING (MINES) ROOM 305 Room Type: Lecture Capacity: 25

is not accessible



ented to blackboards

surfaces

MINES BUILDING (MINES) ROOM 314
Room Type: Lecture Capacity: 30

teaching space

storage space



materials

seating

accessibility

issues

MINES BUILDING (MINES) ROOM 312
Room Type: Lecture Capacity: 25

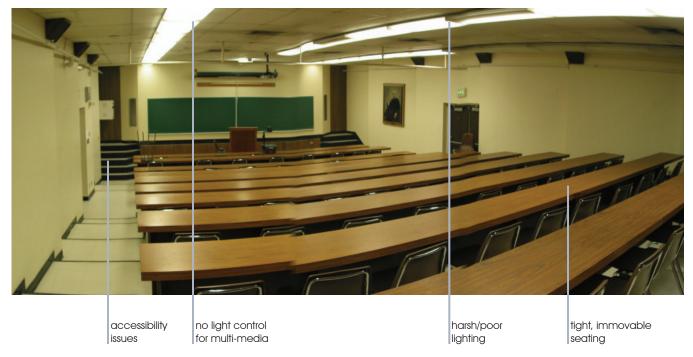
through windows



PERFORMING ARTS BUILDING (PAB) ROOM 103
Room Type: Lecture Capacity: 99

uncomfortable

furniture



STEWART BUILDING (ST) ROOM 104
Room Type: Lecture Capacity: 100



STEWART BUILDING (ST) ROOM 215
Room Type: Lecture Capacity: 35

PREPROGRAMMING
Preprogramming is an essential component of the Feasibility Study. This section identifies the potential users of the new Campus Learning Center. It also outlines the general programmatic requirements for the new facility. The Preprogramming will become the starting point, or guideline, for a more extensive effort in the actual Programming Phase.
Eight colleges were interviewed to determine support and ideas for the new Campus Learning Center. All eight colleges strongly support the concept of this new general classroom building. The following is a summary of the overall ideas for the new facility. The comments and ideas listed on pages 3.3 - 3.5 are from interviews with the Deans of each of these colleges.

INTERVIEWS WITH COLLEGES

Eight Colleges were identified as potential users of the new Campus Learning Center. These Colleges are:

College of Architecture and Planning

College of Business (David Eccles School of Business)

College of Education

College of Fine Arts

College of Health

College of Humanities

College of Social and Behavioral Science

College of Social Work

SUMMARY OF CLASSES TAUGHT OUTSIDE OF EACH COLLEGE'S MAIN BUILDINGS

Students and faculty in these colleges are spending a great deal of time traversing the campus in order to take, teach their classes. A centralized Campus Learning Center would bring the students and faculty to a high quality core space with many teaching amenities all in one location. The benefits would be enormous to these eight colleges and all the rest of campus.

College of Architecture and	l Planning———	(teaches a total of 118 classes)
Locations:	AEB, ART, FINE ART, OSH	
Class size of 20 or Fewer:	2	
21-40:	0	
41-60:	1	
61-80:	0	
81-100:	0	
100+:	2	
Total # Outside Locatio	ns: 5	= 6% of total classes taught

College of Business (David E	iccles School of Business) $oxdot$	(teaches a total of 569 classes)
Locations:	ARCH, BEH S, EMCB, MBH, OSH	
Class Size of 20 or Fewer:	4	
21-40:	3	
41-60:	3	
61-80:	3	
81-100:	1	
100+:	0	
Total # Outside Locatio	ns: 14 = 3%	of total classes taught

College of Education —		——— (teaches a total of 633 classes)
•		(1000 100 0 000 0 000 0 000 0 000 0 0 0
Locations:	AEB, ANNEX, BEH S, BUC, JTB,	LCB, OSH, UNION
Class Size of 20 or Fewer:	52	
21-40:	41	
41-60:	0	
61-80:	0	
81-100:	0	
100+:	0	
Total # Outside Loca	tions: $93 = 19$	9% of total classes tauaht

College of Fine Arts —		(teaches a total of 1,038 classes)
Locations:	AEB, ASB, BEH S, CRCC,	FAMB, JTB, OSH, S BEH, ST, SW
Class Size of 20 or Fewer:	8	
21-40:	15	
41-60:	9	
61-80:	3	
81-100:	3	
100+:	6	
Total # Outside Locatio	ns: 44	= 5% of total classes taught

College of Health————	(teaches a total of 1,140 classes)
Locations:	AEB, ARCH, BUC, EMCB, FAMB, JFB, JTB, LS, MBH, NS, OSH, BEH, ST, SW
Class Size of 20 or Fewer:	43
21-40:	35
41-60:	20
61-80:	5
81-100:	2
100+:	3
Total # Outside Locatio	108 = 10% of total classes taught

College of Humanities — Locations:		(teaches a total of 1,691 classes) B, BEH, BUC, EMCB, EMRL, FAMB, FINE ARTS, HEB, HPR N, HPR S, MBH, MCD, MEB, MIL S, MINES, NS, PAB, ST, SW, UNION,
Class Size of 20 or Fewer:	165	
21-40:	297	
41-60:	38	
61-80:	11	
81-100:	9	
100+:	9	
Total # Outside Loca	tions: 529	= 37% of total classes taught

College of Social and Behavioral Science———		(teaches a total of 1,332 classes)
Locations:	ANNEX, ARCH, BUC, EM	CB, FAMB, FINE ARTS, HEB, HPR E, HPR N, JFB, JTB, JWB,
	LCB, LNCO, LS, MBH, MI	EB, MINES, PAB, SW,WBB
Class Size of 20 or Fewer:	56	
21-40:	109	
41-60:	66	
61-80:	17	
81-100:	11	
100+:	12	
Total # Outside Locatio	ons: 271	= 25% of total classes taught

College of Social Work—		(teaches a total of 193 classes)
Locations:	BEH S, CRCC, HPR N, M	· · · · · · · · · · · · · · · · · · ·
Class Size of 20 or Fewer:	7	
21-40:	27	
41-60:	0	
61-80:	0	
81-100:	0	
100+:	0	
Total # Outside Locat	ions: 34	= 21% of total classes taught

TYPICAL CLASS SIZES OF THESE COLLEGES

In discussions with each of the Deans, they reported that class sizes vary from small seminar size rooms of 15-20, to class sizes greater than 100. In general, all colleges felt many of their class sizes were dictated by existing class-room sizes and the availability of class times; they have adapted to what is available. The majority of the Colleges felt the appropriate class size information should come from Space Planning and Management, along with data provided by the Scheduling Office.

TYPES OF CLASSROOMS SOUGHT IN THE NEW CAMPUS LEARNING CENTER

There is a need for various classroom types and sizes; smaller classrooms with flat floors and flexible room layouts, along with larger classrooms with tiered floors and horseshoe shaped seating configurations.

The University of Utah is one of the State's flagship institutions and as such, high technology classrooms are greatly needed to maintain a competitive edge, as well as provide state of the art educational opportunities. Classrooms should provide the ability for students to give immediate feedback (something at each desk that would allow each student to give immediate feedback to a response or question)—a console of some type at each seat. The new Campus Learning Center classrooms should have the same technology as the new Health Sciences Education Building, at a minimum.

Classrooms need to be wireless as well as have plug-ins for laptops. However, there are concerns about wireless---there must be a method of "turning it off." (How do you do a closed book electronic exam? How to block access to internet and e-mail?)

INDIVIDUAL COLLEGES' INTEREST IN THIS TYPE OF GENERAL CLASSROOM BUILDING

The campus and general student population urgently need this new classroom building. The existing general classrooms currently utilized by the students are not the type of QUALITY spaces that are needed. Once again, the University risks the student population losing it's competitive edge by lack of technology and inadequate teaching/learning environments. The new Campus Learning Center is something the entire University needs.

The new Campus Learning Center could provide more of the larger size classrooms.

Having a new Campus Learning Center will help eliminate the situation of using classrooms that aren't appropriate (whether it be size or type or location).

A new Campus Learning Center will create opportunities for more interdisciplinary conversations and collaborations.

By freeing up general classroom space within each College's own building, each College can then remodel and renovate to meet their own program's specific needs and growth.

The College of Humanities would like to study the option of combining their Phase 2 Building with the new Campus Learning Center, in hopes of combining some of the general classroom needs in Phase 2 with the general classrooms of the Campus Learning Center. This would be an efficient and cost effective use of space that would benefit the entire University undergraduate population.

SUGGESTIONS FOR THE LOCATION OF THE NEW CAMPUS LEARNING CENTER

It is important to locate the new Campus Learning Center as "central" on campus as possible. "Central" means many different things, but most important, central to the student residential population and their circulation on to campus, central to TRAX, and central to the seven Colleges identified as potential users. A central location must also consider the future University expansion from the old dorm site to the North and East.

Open space adjacent to Milton Bennion Hall would be the most central location for the seven Colleges, but there is concern that a new Campus Learning Center may not fit, or may preclude Milton Bennion Hall's own expansion. The old dormitory site is an excellent location, but the further west on the old dorm site the better.

Representatives from the Colleges were interested in seeing both of these sites studied in the Feasibility Study Site Considerations (Section 5).

IDEAS REGARDING RE-USE OF POTENTIALLY "FREED-UP" SPACE

All Colleges expressed the great benefit for "freeing-up" space in their own buildings by having a new Campus Learning Center. All Colleges have (or are currently working on) a Master Plan that involves strategies of how to renovate/add on to their existing facilities. The new Campus Learning Center would potentially allow Colleges to either:

- 1. Renovate the existing classrooms within their buildings to be more specialty classrooms/lab type spaces that would better serve their specific needs, allowing the Campus Learning Center to fulfill their general classroom needs.
- 2. Provide the opportunity to utilize the existing classrooms within their own buildings for different programmatic uses, including solving office growth demands and providing potential student oriented spaces that are direly lacking.
- 3. Colleges would like to be able to control additional classrooms in some of their existing space. If other uses were to "free-up" space for Colleges within their own buildings, this would help each College be more centralized and program specific within their existing buildings. A case by case study will need to be done to determine use of the space that is "freed-up." Space may be given back to the Colleges, but the new Campus Learning Center will also replace old, unsuitable classrooms.

One of the goals of the new Campus Learning Center is to relieve space pressures in the most crowded of the academic buildings so that classroom space can be converted into departmental space. This would help immensely in the Colleges of Business, Education, Health, Humanities and Social and Behavioral Sciences. It is not possible to free up all of the classrooms in any of these college buildings, but some reclaimable space will help each college to solve their most critical needs. Timing will be a very important driver in classroom building/planning.

FUNDING OPTIONS

This new building needs to be supported by the University, through a coalition of Deans supporting this as a CORE campus building (in regard to funding.) All Colleges feel strongly that a new Campus Learning Center must be fully funded by the State. The Colleges will not be willing to fundraise for a new Campus Learning Center if it jeopardizes their fundraising efforts for their own capital projects. These projects include renovations and additions to College's existing buildings in order to update or add offices, research space, specialty centers, and student support and administration space.

SPACES BEYOND CLASSROOMS TO BE CONSIDERED FOR THIS BUILDING

All Colleges support the idea of locating IMS in the building as a permanent tenant. IMS would provide technology support and service and maintenance of classroom equipment. A food service element, copy center, computer labs, and break-out rooms for student projects should also be considered.

Space should be provided for delivery trucks, and parking should also be addressed as a critical planning issue.

Another consideration for the new Campus Learning Center would be to relocate the existing University of Utah's main campus bookstore to this location. This would add approximately an additional 50,000 NSF/78,000 GSF to the new Campus Learning Center and increase the construction costs by \$16,161,600.00 (FY 2008) and soft costs by \$5,656,560.00 for a total increase in project cost of \$21,818,160.00 (FY 2008.)

PROPOSED SPACES FOR CAMPUS LEARNING CENTER

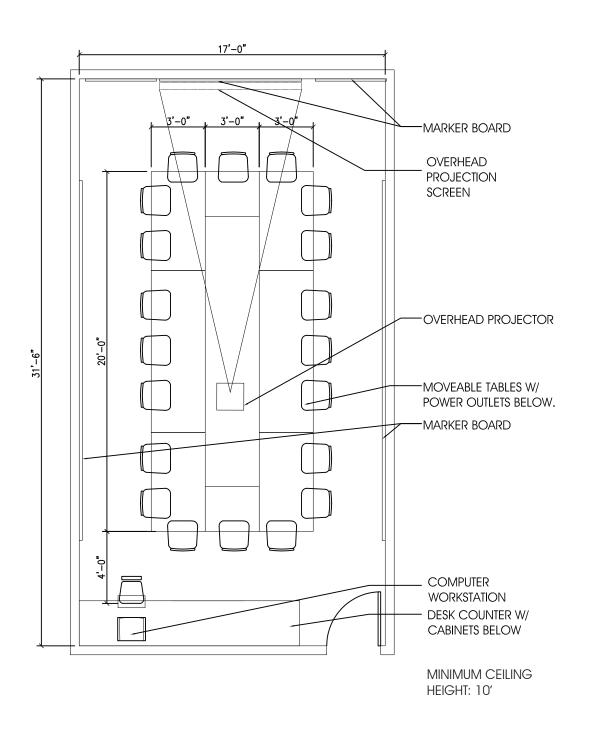
5 Classrooms @ 150 Capacity (150 x 20 SF) 3,000 SF EA	15,000 NSF
10 Classrooms @ 100 Capacity (100 x 25 SF) 2,500 SF EA	25,000 NSF
10 Classrooms @ 75 Capacity (75 x 25 SF) 1,875 SF EA	18,750 NSF
20 Seminar/Breakout Rooms @ 20 Capacity (20 x 25 SF) 500 SF EA	10,000 NSF
1 Computer Info Commons Area	2,250 NSF
1 Quiet Study/PC Hookups Computer Area	2,250 NSF
1 Lounge, Study, Café Area	2,250 NSF
Instructional Media Services (IMS) Department to serve as anchor to operate, service and maintain the high technology classrooms (See Detailed Breakout of IMS Space Needs, this section) Other Colleges and Department functions that would help define this building as a core, interdisciplinary, central "teaching lab" for main campus. (Similar to the new Health Sciences Education Building)	10,000 NSF 10,000 NSF
Sub Total NSF	95,500 NSF
Efficiency Factor of 64%	54,500 GSF
TOTAL BUILDING GSF	150,000 GSF

Function Area		Program NASF	
1 Private	Office Director	150	NSF
2 Private	Office Accounting/HR	130	NSF
3 Private	Office Manager of Classroom Services	130	NSF
4 Private	Office CVS Supervisor	130	NSF
4 Private	Office Computer Supervisor	130	NSF
5 Private	Office Audio Visual Distribution Supervisor	130	NSF
6 Work S	tation for Receptionist	100	NSF
7 Recep	otion Waiting Area	100	NSF
8 Admin	istration copy-fax-mail	150	NSF
9 Associ	ate storage for AdministrationFiles and Supplies	200	NSF
10 Small	Conference Room for 8 people	160	NSF
11 Large	Conference Room for 16 people	320	NSF
12 Break	Room	150	NSF
	com/studio space for distance learning and teleconference- 12 person control room	420	NSF
1 /1	com/studio space for distance learning and teleconference- 40 person control room	1,400	NSF
15 Associ	ated storage for tables and chairs for classroom/studios	250	NSF
101	cian Work Room-Up to 6 work stations for technicians with additional for work bench	1,200	NSF
11/1	ectronic Editing Area: for streaming video and helping faculty convert DVD. Up to 8 work stations	700	NSF
18 Secure	Room for Electronic Editing equipment rack	150	NSF
	er area for Electronic Editing with space for photography-cameras-video environment)	250	NSF
20 Help D	esk/Equipment Check out	300	NSF
21 Waiting	g Area-Staging Area for customers visiting Help Desk	150	NSF
	ne employee work space: Up to 6 work spaces that would be shared by me employees	480	NSF
23 Locker	/Personal Storage for part time employees	120	NSF
24 Mail-b	ox like space to drop off CD's	80	NSF
25 Server	Area with raised floor/UPS	320	NSF
	al secure storage areas for: Av Equipment, Equipment Check Out and e, CVS Associated Equipment	2,200	NSF
Sub To	tal .	10,000	NSF

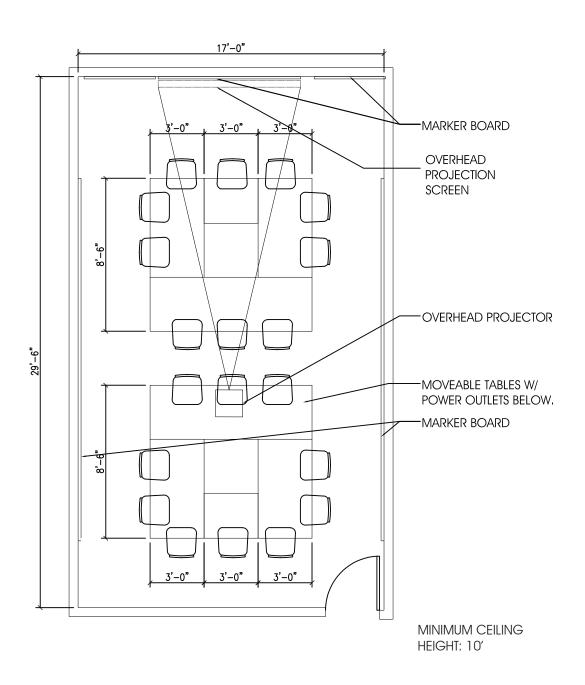
ADDITIONAL IMS NEEDS

In addition, IMS will need several parking stalls adjacent to the building and loading dock/loading area. IMS currently has 100-200 faculty, students and staff who come each month to pick up equipment or media. We will need to provide 4-5 "free" meter spaces, along with several spaces for parking the IMS golf carts.

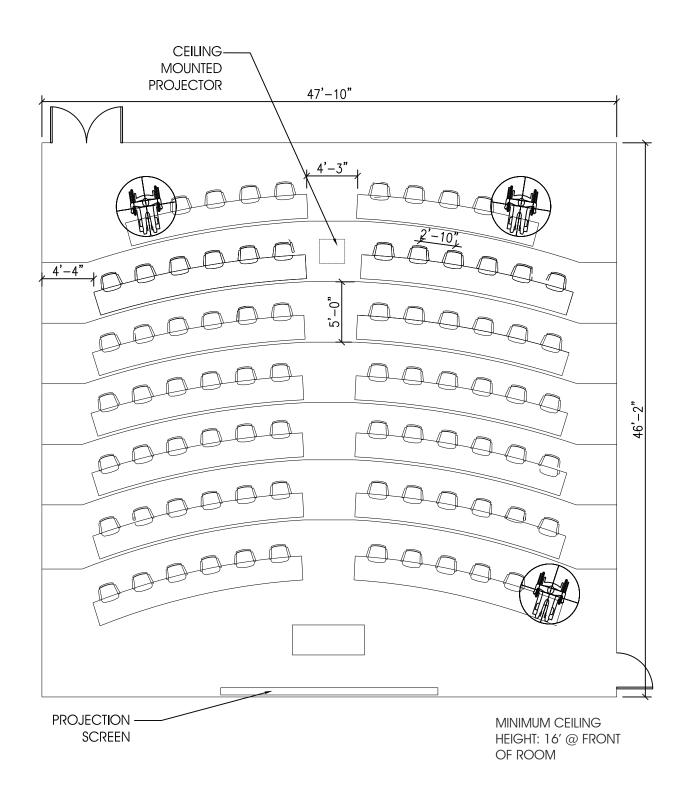
IMS has and extensively uses a satellite dish to receive programming from other educational institutions and professional meetings. It is important to provide appropriate sight lines for satellite reception. In addition, feeds of satellite programming via coaxial and fiber optic cabling distributed across campus will also need to be provided for IMS.



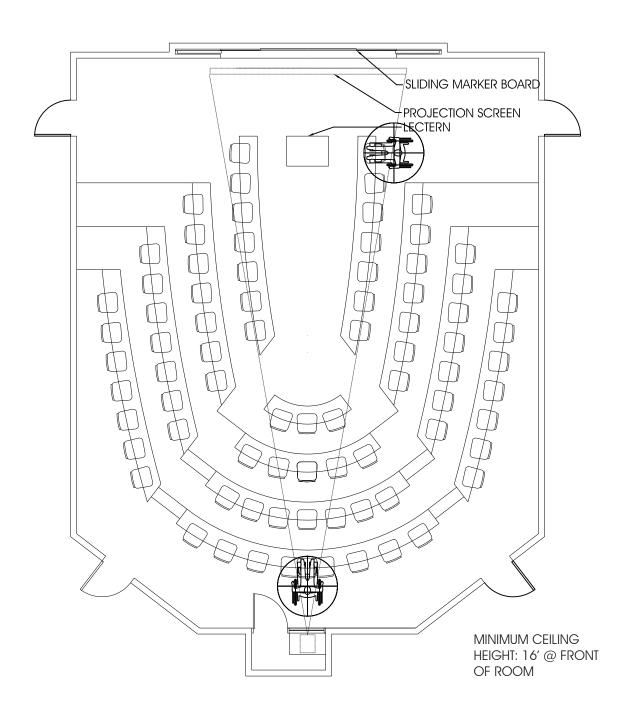
20 PERSON CLASSROOM EXAMPLE Scale 3/16"=1' 537 NASF



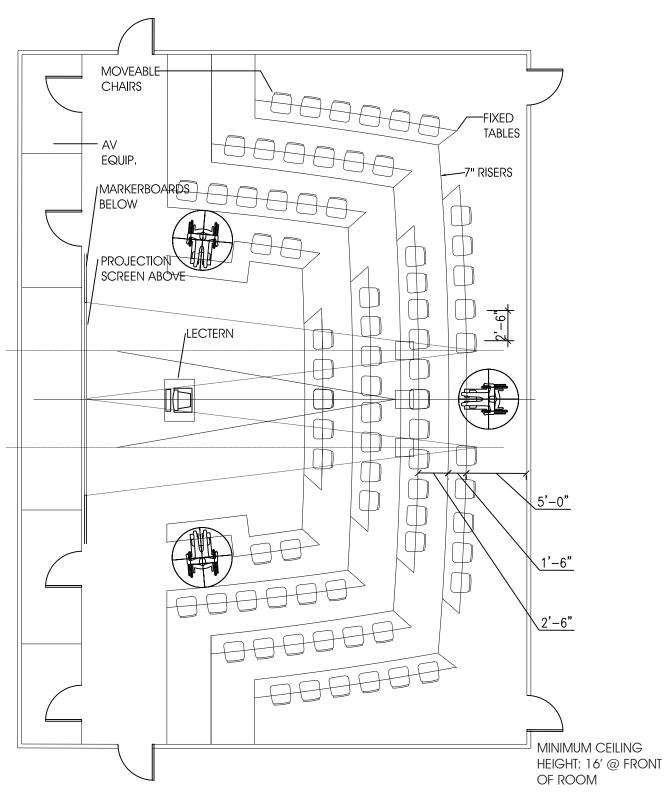
20 PERSON CLASSROOM EXAMPLE Scale 3/16"=1' 500 NASF



75 PERSON CLASSROOM EXAMPLE
Scale 1/8"=1' 2,208 NASF

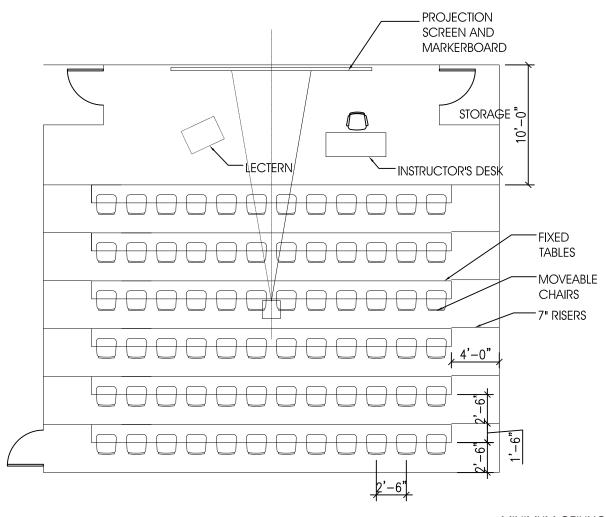


75 PERSON CLASSROOM EXAMPLE Scale 1/8"=1' 1,770 NASF



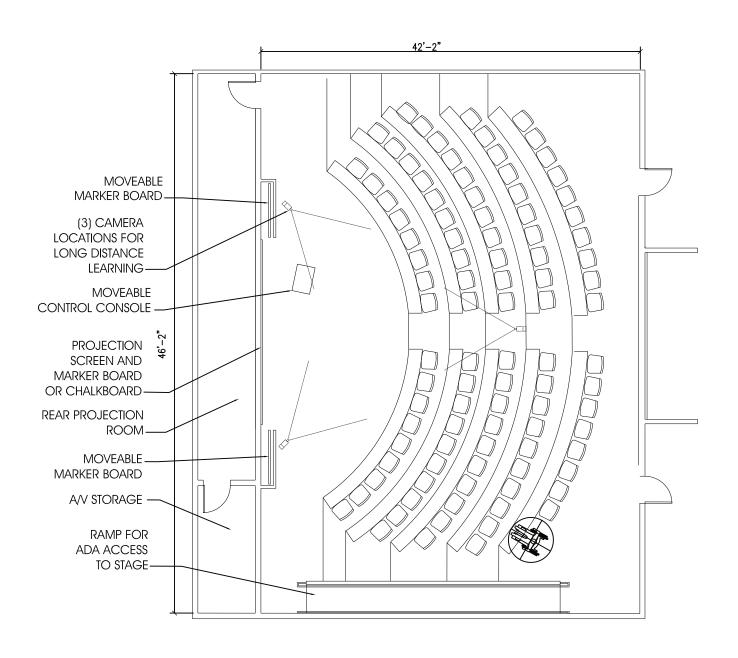
75 PERSON CLASSROOM EXAMPLE Scale 1/8"=1' 2,200 NASF

3.14



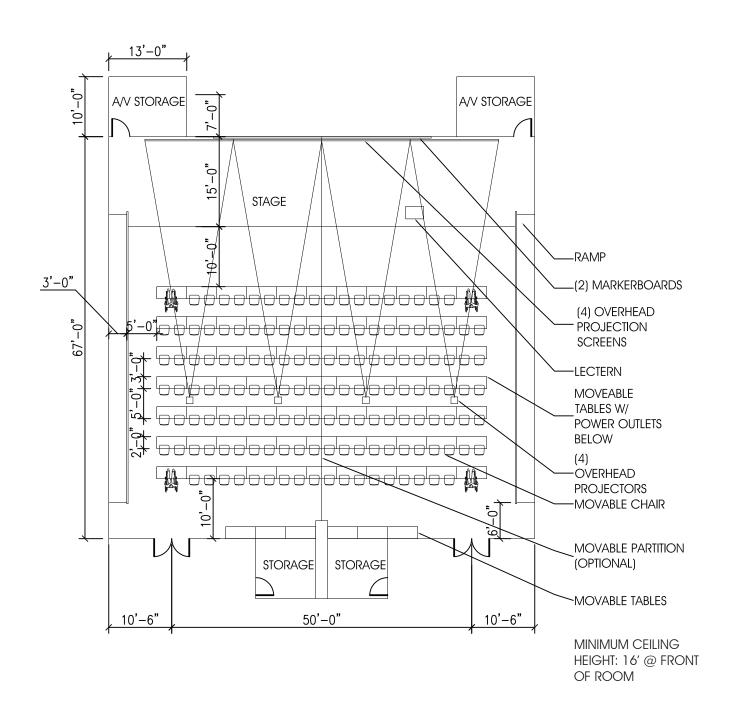
MINIMUM CEILING HEIGHT: 16' @ FRONT OF ROOM

75 PERSON CLASSROOM EXAMPLE Scale 1/8"=1' 1,500 NASF

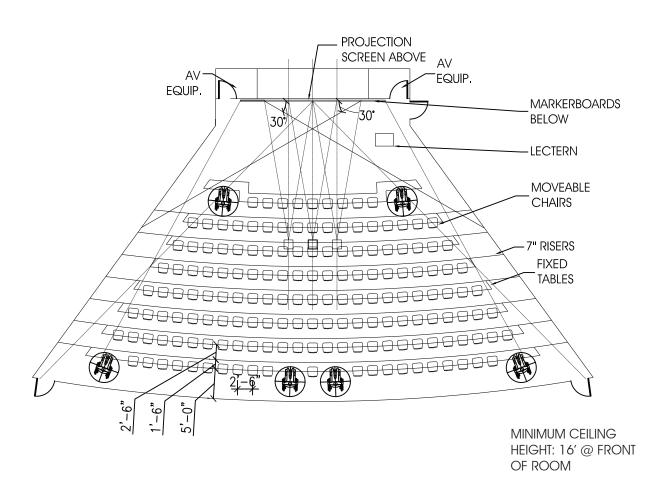


MINIMUM CEILING HEIGHT: 16' @ FRONT OF ROOM

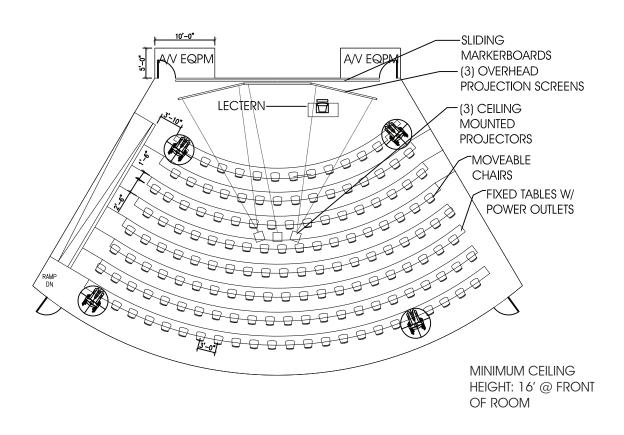
100 PERSON CLASSROOM EXAMPLE Scale 3/32"=1' 2,700 NASF



150 PERSON CLASSROOM EXAMPLE Scale 1/16"=1' 4,757 NASF



150 PERSON CLASSROOM EXAMPLE Scale 1/16"=1' 3,000 NASF



150 PERSON CLASSROOM EXAMPLE Scale 1/16"=1' 3,054 NASF



HIGH TECHNOLOGY CLASSROOMS

During the Summer of 2005, a group nominated by the ITC met to discuss the configuration of a "High Technology" Classroom. The group was comprised of faculty who frequently use technology in their teaching, including several whose applications exceed current standard configurations. Also included were administrators who oversee or support classroom technology.

COMMITTEE MEMBERS

Erik Brunvand (School of Computing)
Adrial Burkholder (AOCE)
Martha Eining (Eccles School of Business)
Dan Gorrell (Quinney College of Law)
Michael Kay (College of Engineering)
James Parker (Purchasing)
Wayne Peay (Eccles Health Science Library and School of Medicine)
Gary Rasmussen (Marriott Library)
Paul Simmons (Purchasing)
Pieter VanderHave (Plant Operations)
David Zemmels (College of Fine Arts,)
Helen Lacy (Instructional Media Services)

GOALS OF THIS COMMITTEE

- 1. Refine standards for existing and future "base level" technology classrooms.
- 2. Define standards for High Technology Classrooms.
- 3. Identify faculty preferences and concerns based on use of existing High Tech Classrooms in University classrooms in CRCC, Marriott Library, etc.
- 4. Identify desirable technology.
- 5. Consider potential configurations and locations for future General Purpose High Tech Classrooms.

CURRENT STANDARDS FOR TECHNOLOGY IN CLASSROOMS

A projector with excellent resolution (1024 x 768 pixels, also called XGA), and with sufficient brightness that projected images can be clearly viewed while room lights are on (2000 ANSI lumens, minimally);

An audio system appropriate to room size, including sound from input devices and, if needed, a separate system to amplify instructor's voices. Assistive learning audio devices and video captioning devices for hearing impaired students are available upon request;

Simple operating controls using conventions which do not include control of lighting nor of window coverings. Operating conventions for control systems should be as standard and consistent as possible across campus;

Appropriate peripherals for instructional input: VHS player, DVD player, connection for a laptop computer; flash drives, etc;

Access to the Internet using hardwired and wireless connections with authentication;

Distributed sound (microphones and speakers for amplifying instructors, panels or guest speakers) as distinct from sound from installed peripherals (VCRs, DVD players, etc.), as needed;

White boards (preferably) or chalkboards in classrooms.

Telephone access to a Help Desk to answer faculty questions. Technicians can be dispatched to resolve operational problems. On-site orientations in classrooms is available upon request.

THE FOLLOWING ITEMS WERE IDENTIFIED AS POINTS OF GENERAL CONSENSUS.

The currently defined configuration is appropriate for base level technology classrooms.

Simplicity of use is a key consideration; it is pertinent in equipment configuration, operation and operating instructions.

Operating systems should continue to be consistent across campus.

Labeling should be brief and clear — current labeling is appropriate.

Training should be available both for individual faculty and for groups.

Placement of white boards or chalk boards should not be obstructed by projection screens.

It would be beneficial if lighting systems could be aesthetically labeled.

ADDITIONAL PERIPHERALS AND EQUIPMENT CURRENTLY IN USE

The following is a list and description of additional peripherals and equipment used in some classrooms, auditoriums, and in departmental or college classrooms, conference rooms, seminar rooms, or computer labs:

Installed monitoring systems which allow faculty to see the projected image while still facing the students in front of them.

Document cameras which can be used to project both two and three dimensional materials electronically onto the main projection screen.

Annotation devices, such as "Smart Boards," which allow faculty to visually mark projected instructional materials.

Student response devices.

Multiple projectors, depending on need.

Special projectors meeting specific needs: such as higher resolution or greater brightness, film-quality projected image, etc.

Computers in podiums or tablet PCs for instructors.

Computers or laptop connections for students.

Internet connectivity for students.

"Recording" for streaming.

Lighting:

Florescent lighting is most efficient and economical for lighting large areas. It is not an ideal lighting source to be used adjacent to projected images since it tends to wash out and distort color and diminish viewable image quality. Dimmable incandescent lights should be used in conjunction with fluorescent to accommodate this consideration. Dimmable florescent lights are improving but not yet effective in this use.

Lighting controls can be an issue in existing classrooms. It is very helpful if lights are configured in rows across the breadth of the classroom in zones which parallel seating in rows from front to back rather than in vertical rows which are perpendicular to seating. It is important for safety and for note-taking that lights adjacent to projectors can be dimmed or turned off while lighting in student seating areas can be left on.

If lighting is included in control systems, redundant lighting controls should be mounted in at least one of three areas: on the wall near the teaching space, on the wall near doors or in podiums.

Seatina:

Standard moveable desk chairs are relatively inexpensive and easy for custodial staff to work around. They are not conducive to the use of laptop computers by students. They do allow for flexibility in class-room configuration since modern pedagogy uses collaborative learning techniques frequently which has students work on breakout assignments in small groups. Movable chairs with tables (perhaps on wheels)

which seat two or three students and which can easily be reconfigured would allow sufficient space for students to use electronic devices such as laptops and/or to gather into working groups might offer an effective compromise.

Access and seating for both instructors and students should comply with ADA standards.

Also in classrooms where computers are used extensively by students, it is helpful for faculty to have the option of teaching from the rear of the room which allows them to observe students during class as well as have a comprehensive view of the imagery projected in demonstrations.

Podiums:

There is great diversity in teaching styles. Some faculty find the use of podiums stultifying; others feel that having all equipment controls and instructional materials (including notes) available in a defined place is helpful.

Podiums should allow for easy access and operation which complies with ADA standards. For faculty comfort, podium mobility is desirable but technologically difficult to accommodate because equipment requires wiring, or tethering, for power and equipment connectivity. Movement of tethered wiring introduces the risk of wires being shorted or broken and of people tripping on them.

Control systems:

Logical, legible, accessible control systems which use a common set of operational conventions are mandatory for use in all classrooms with installed projection technology. Control systems should not be the sole means of turning lights on and off, nor of opening or closing window coverings. If these elements are included in a control system, there should be redundant, physically accessible switches.

Installed computers:

There is no consensus in this area. Some instructors only feel comfortable using their personal laptop computers with familiar software, setups and operating systems. Others are adept at bringing course content on media such as CDs, DVD or flash drives which could utilize equipment installed in a classroom.

It is also important to have ports in classrooms which afford instructors access to departmental networks through an authenticated login.

Annotation devices:

These include Smart Boards, Mimeo and Sympodium devices (all brand names) and other equipment and software which allow faculty or students to add visual information onto a projected image. Several devices, such as Smart Board, have limited screen size which are legible only to relatively small classes (25 to 30 students) and should only be used in smaller classrooms; output of other systems can be combined with the large projected image. Some other concerns about annotating projected images include drawbacks such as the size of annotation markings as they appear on the images on the screen — some are too large, others show as fine lines which are not legible in large groups or to the visually impaired. The physical size and shape of marking devices and their cost can also be negative factors. Some annotation devices can be integrated into a podium. Some instructors use laser pointers to point out features of projected images. The cost and "pilpher-ablility" of pointers would suggest that perhaps these should either be assigned to departments and/or specific instructors rather than being part of the equipment package for classrooms.

Student response devices:

Allow polling of students ranging from "yes/no" responses to simple questions with multiple choice responses. Logistical operation and cost are concerns. Some systems must be line of sight and require cumbersome wiring which is difficult to install aesthetically. Many systems require that students purchase or rent a handheld response device for a term. Some systems also require annual headcount licensing fees.

Recording/Streaming/Video-on-demand:

Streaming allows faculty to bring video course content to the classroom as it is needed. It would also allow course materials and student presentations to be captured for review and analysis by faculty and students outside of class time. This will require significant bandwidth for transmission and massive data storage capacity. This issue is being studied by the Video-On-Demand Committee, but this would be a desirable option in select classrooms.

Power:

With more faculty and students using laptops, it is important to have several power outlets accessible either around the perimeter of a classroom or in floors to avoid the hazard of power cords stretched from desks to outlets.

Internet connectivity:

Faculty access to Web sites and departmental local area networks is important to any classroom technology installation. It is sometimes difficult and/or expensive to retrofit older buildings where there are building and architectural obstacles and in spaces which are asbestos laden. Wireless connectivity is becoming more common but is not ubiquitous across campus; also, bandwidth can be an issue for high volume access. These are factors in selecting classrooms for installation. Internet connectivity is also a factor in the following two items — energy efficiency and security.

Energy efficiency:

Energy efficient technology with power-down when not in use is a desirable option. Perhaps the equipment could power-up and power-down at certain times of day. This is currently being addressed by using appliance timers. In the future, this is something that could be monitored online, but currently internet accessibility in classrooms is not sufficiently widespread to facilitate on-line monitoring and control from a central point.

Security:

Buildings, projectors and other classroom technology could be monitored on-line. This would be very desirable and is something IMS has investigated several times. However, besides the lack of accessibility to the Internet in all classrooms with installed projection equipment, the cost of monitoring equipment from the campus security contractor is prohibitive; and Campus Security has indicated that they lack the manpower to monitor the installed classrooms effectively.

Fortunately, using an ever increasing array of physical deterrents (locking clam-shell enclosures, special locks, locking screws and bolts which require special tools for installation and removal, attached alarms, physically branding equipment with IMS contact information, and the use of heavy-duty cabling) has allowed IMS to reduce equipment theft from as many as 16 projectors stolen in a year to the loss of one-to-two projectors per year.

BASIC COMPONENTS OF A HIGH TECH CLASSROOM

From these discussions, there was consensus on the base level components of a High Tech Classroom. These components were defined as follows:

Projectors:

One or more bright projectors (2,000 to 5,000 ANSI Lumens) which allow teaching and learning to take place without extinguishing or significantly dimming room lights. This allows the use of florescent lighting which is more efficient than incandescent lighting.

Projector resolution should be appropriate for legibility by students. The higher the resolution, the smaller characters appear in the projected image. Currently 1024 x 768 (also called XGA) is a viable balance between resolution and legibility in most 60+ student classrooms.

Special projectors meeting specific needs (as noted above).

The range of peripherals to be considered for the high tech classrooms installation should include:

Installed monitoring systems which allow faculty to see the projected image while still facing the students in front of them.

Document cameras which can be used to project both two and three dimensional materials electronically onto the main projection screen.

Annotation devices which allow faculty to visually mark projected instructional materials. Smart Boards and other brand name devices may be used in small teaching spaces, the size of the screen image limits legibility in larger rooms.

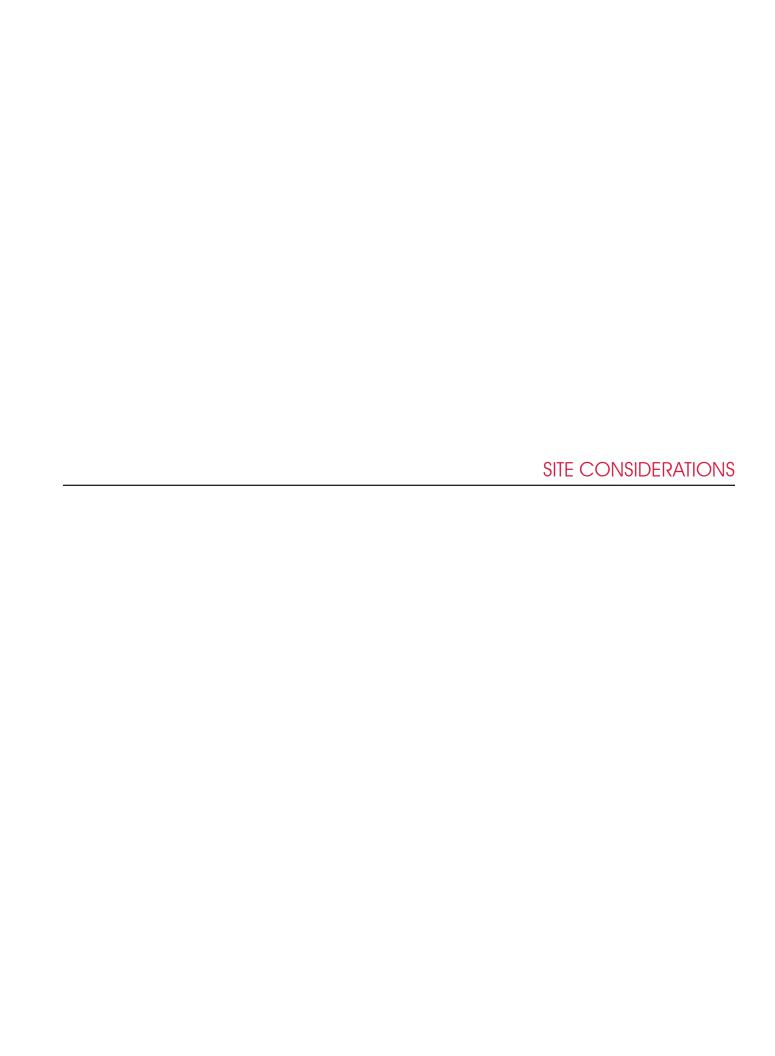
Student response devices.

Computers in podiums or tablet PCs for instructors.

Computers or laptop connections for students.

Internet connectivity for students.

"Recording" for streaming.



SITE CONSIDERATIONS

Two sites have been considered for the location of the new Campus Learning Center. One site is located at the site of the old dormitories, the other site is the open space to the north of Milton Bennion Hall. Based on a preliminary site analysis for both sites, the most likely site being considered for the location of the new Campus Learning Center is the site of the old dormitories, along HPER Mall. The site sits directly north of the HPER and was the location of Balliff Hall, a dormitory that has been demolished to make way for new construction opportunities in this area.

WALKING TIME TO POTENTIAL NEW SITE

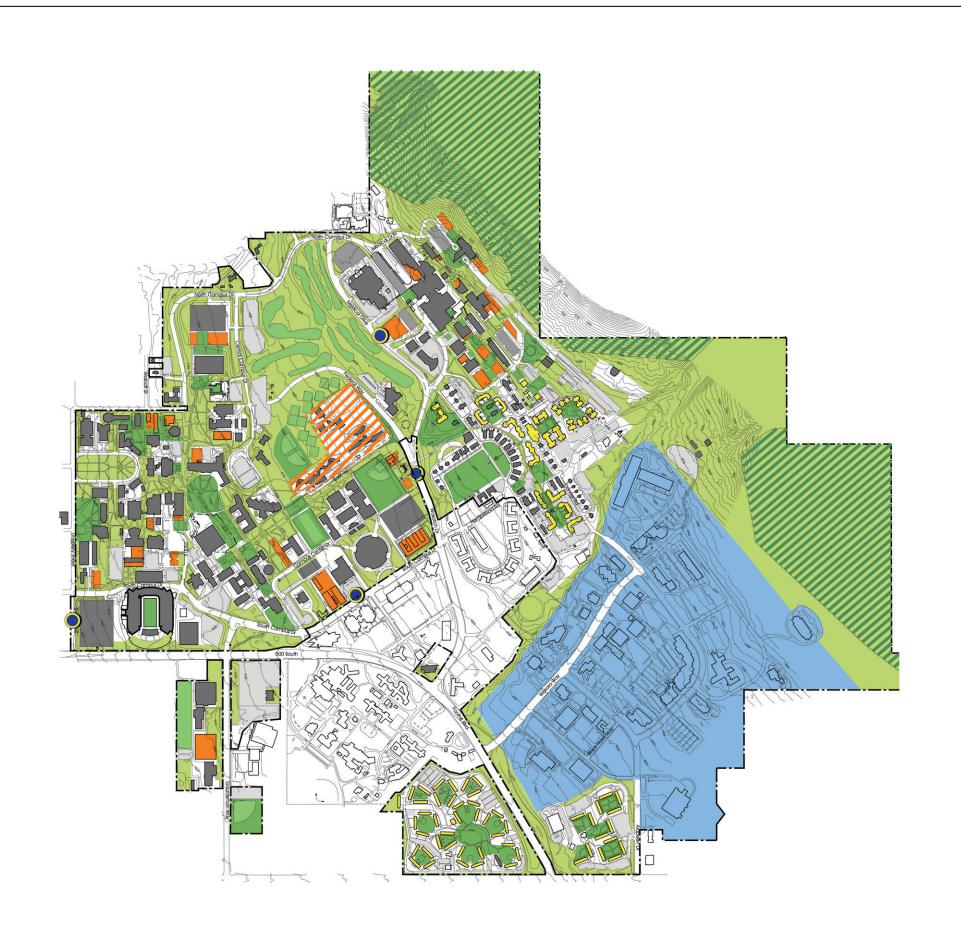
A non-scientific study was done to determine the approximate time it would take to walk from each College to the old dorms site. The following times were clocked at a moderate pace going from the main door of the various buildings to the approximate southwest corner of the proposed Campus Learning Center.

Building 026	College of Social Work ————————————————————————————————————	-7.5 minutes
Building 025	College of Social and Behavioral Science —	-6.5 minutes
Building 037	College of Architecture and Planning————	-5.5 minutes
Building 077	College of Business——————————————————————————————————	-4.5 minutes
Building 065	College of Education————————————————————————————————————	–2.5 minutes
Building 049	College of Humanities———————————————————————————————————	-2.0 minutes
Building 092	College of Health—	-1.5 minutes

LONG RANGE DEVELOPMENT PLAN

The University's 2003 Long Range Development Plan (LRDP) Supplement identifies the area along the HPER Mall for expansion of academic programs. Major utilities and infrastructure systems are nearby. There are no major utilities located in this area that would be in conflict with a new building. Proximity to the George S. Eccles 2002 Legacy Bridge (connecting Heritage Commons Student Village with Main Campus), provides an integral link to the student housing population.

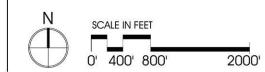
The <u>Long Range Development Plan</u> site map has been included as an excerpt from the University of Utah's Long Range Development Plan initially created in December 1997 and recently supplemented in 2003. This drawing indicates the area for potential new development along the HPER Mall, and the area north of Milton Bennion Hall as a critical open space.





LONG RANGE DEVELOPEMENT PLAN

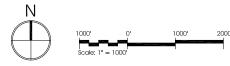








CAMPUS PLAN



SITE OPTIONS 1 AND 2

Site Options 1 and 2 look at placing the new Campus Learning Center at the site of the old dormitories. Both options take into consideration Phase 2 of Humanities. Site Option 1 is based on a 3 level (50,000 GSF/level) 150,000 GSF building. Site Option 2 is based on a 2 level (75,000 GSF/level) 150,000 GSF building

Opportunities

Site Options 1 and 2 will allow the new building to line the HPER Mall, making the facility more visible to one of the campus' main circulation paths, and helping to define an edge to the corridor.

This location, ideally placed between the Olpin Student Union and the HPER Mall, provides the potential to create new secondary paths connecting the two campus nodes.

As the project moves into Programming, additional site planning and a detailed site analysis will need to take place to make sure its location is making the best use of the existing trees on the site and between the site and the HPER Mall. In addition, other site advantages such as views, proximity, and such will require further study.

This site has incredible potential for developing into a vibrant and dynamic student gathering space. It should be carefully planned and coordinated with the new Humanities Building Phase 1 to create a cohesive master plan solution for this area of campus.

Pedestrian Circulation:

Running east to west, the HPER Mall has this site to the north and the HPER Complex to the south. This is a heavily used corridor that connects lower campus, which is centered around academic activities, to upper campus which includes the Health Sciences Education Building and student housing at Ft. Douglas. The HPER Mall also feeds from the Marriott Library, the Social and Behavioral Sciences Building, Orson Spencer Hall, LNCO, the Art and Architecture Building, the Business Buildings, and Milton Bennion Hall. The HPER Mall is used to diagonally connect the Library's main complex to the parking lot associated with the David Eccles School of Business Buildings. The HPER Mall connects to many secondary routes that provide critical links to other areas of campus.

Vehicular Circulation:

The old dorm site is located in close proximity to the Olpin Union's parking lot. This pay lot is heavily used by visitors to the University and occasionally by faculty, staff or students. The Business loop lies just to the south of the site and the HPER Mall. This is also a very busy lot and is popular for student pick-up and drop-off opportunities. A secondary corridor leads straight from the parking at the Business loop to the HPER Mall and north to the proposed site. This provides a strong access for faculty, staff and students from the Business parking lot to the proposed sites.

Parking for the old residential halls is still available for the proposed old dorm site. It is recommended that as further development continues, parking should be considered as a critical element of the project.

Site Options 1 and 2 allow the new Campus Learning Center to be combined with Humanities Phase 2 Building, allowing Phase 2 of Humanities to utilize the classrooms in the new Campus Learning Center. This will create an efficient and sensible solution, eliminating the need for two separate buildings and reducing the amount of overall gross square footage needed to accomplish the goals and vision of the College of Humanities' future growth needs.

Views to the north, east and south offer spectacular panoramas of the Wasatch Range. The HPER Mall is flanked with areas of large trees. Circular planters are located at major nodes in this corridor, providing both aesthetics and seating. Trees and benches line the Mall creating pleasant shaded nooks for resting and informal gatherings.

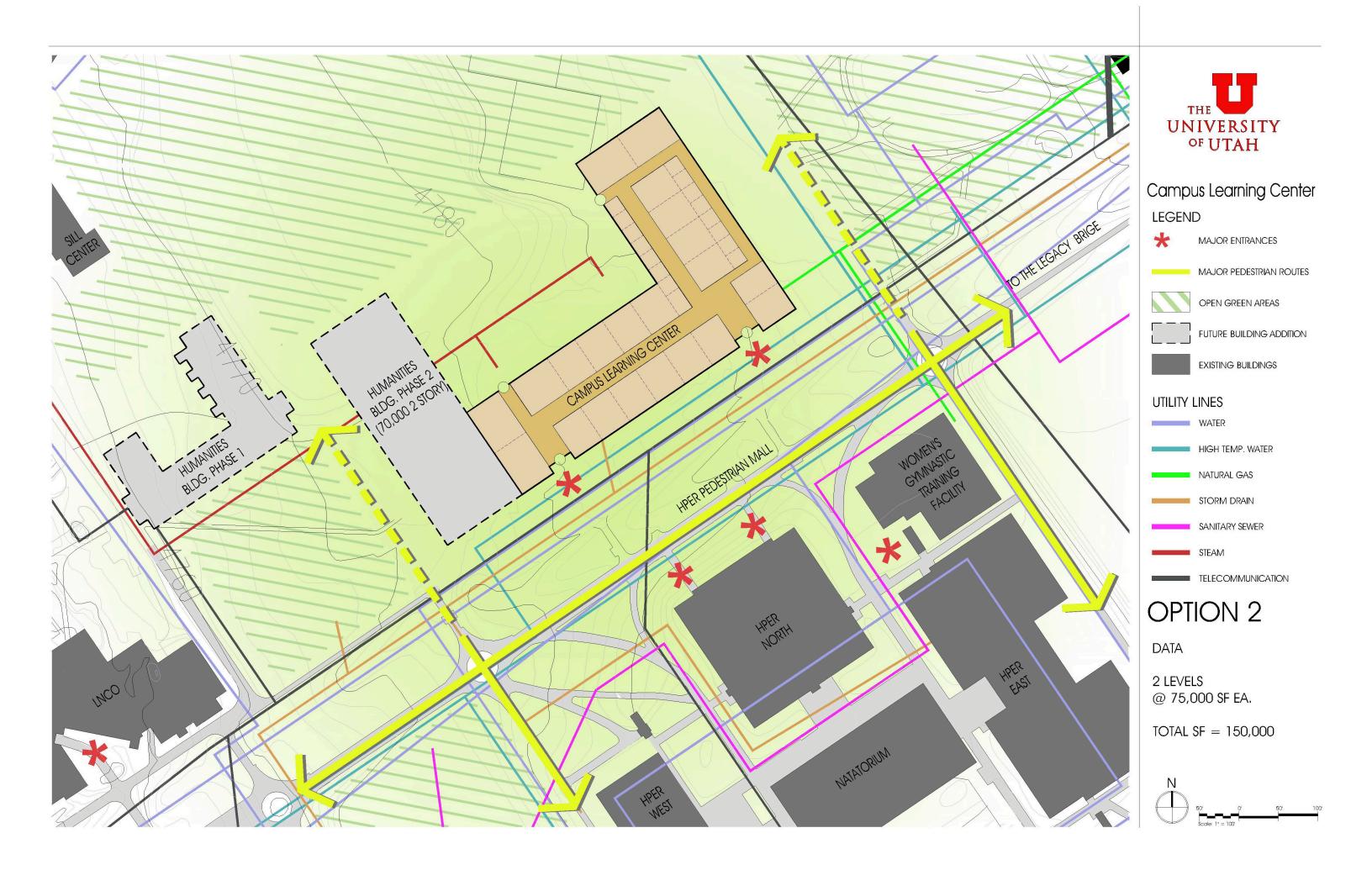
There are no major utilities at this location that would need to be relocated. This will save in site improvement and infrastructure costs for the new Campus Learning Center.

The University of Utah's Long Range Development Plan supports the concept of new buildings in this area to not exceed 3 levels above grade. This site can support either a two level building, or a three level building.

Constraints

Preservation of mature trees and vegetation will be a factor in determining the exact location of the new Campus Learning Center.





Many of the Colleges interviewed expressed an interest in locating the new Campus Learning Center in the open space located north of Milton Bennion Hall. This site would have many of the same opportunities and advantages of the old dormitory site, with the benefit of being further west to what some consider more central campus.

As part of this feasibility study, this site was reviewed to determine how and if a 150,000 GSF building would fit at this site. The following Site Option 3 shows how a 3 level, (50,000 GSF/level) building DOES NOT FIT in the open space located to the north of Milton Bennion Hall.

The plan indicates the intended addition to Milton Bennion Hall by the College of Education. This leaves the open space to the north of Milton Bennion Hall as a potential building site, even though the University of Utah's Long Range Development Plan indicates that this space should be preserved as open space.

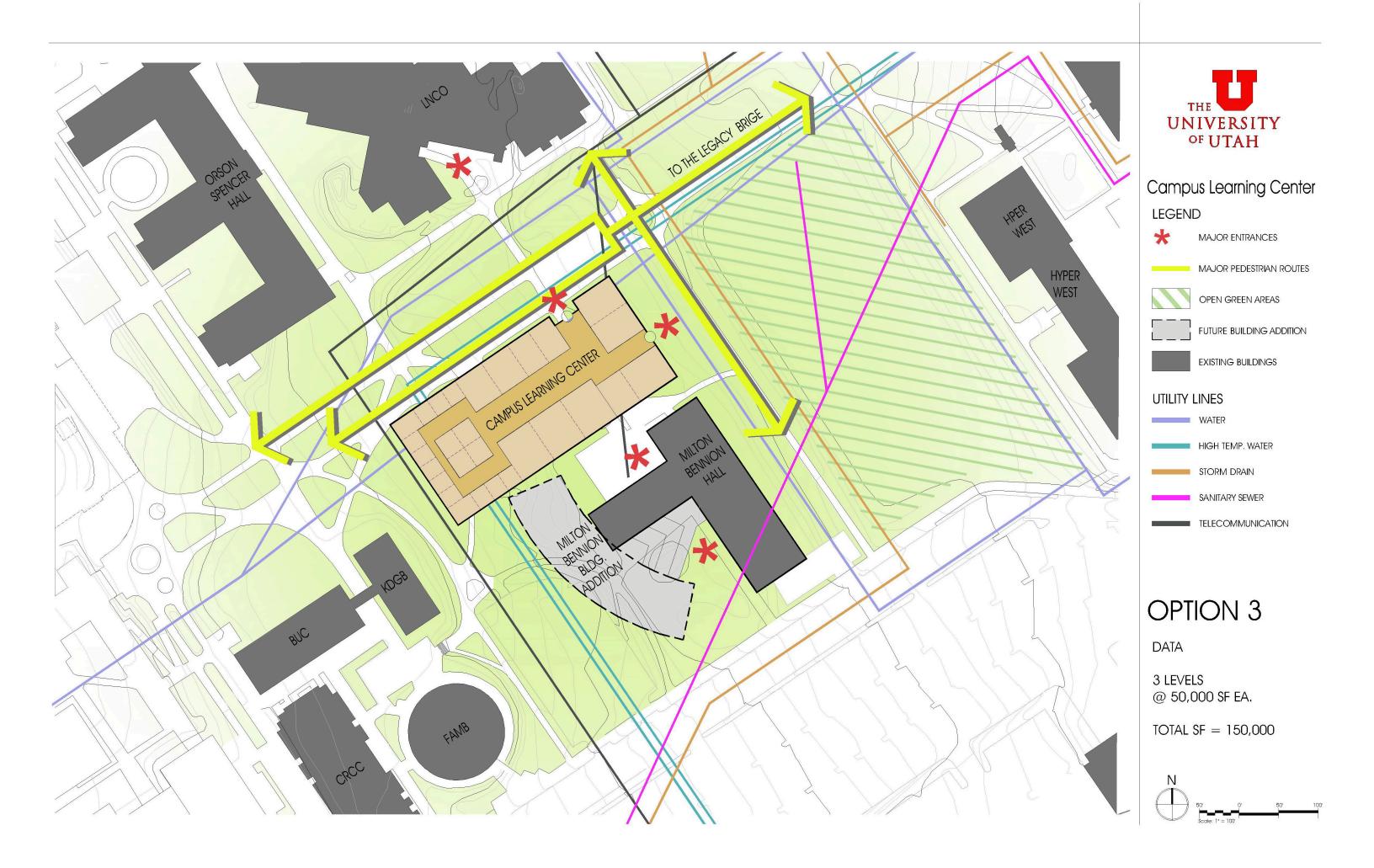
Nonetheless, Option 3 provides the footprint for a three level (50,000 GSF/level), 150,000 GSF building. This footprint/size of building does not work for several reasons:

Constraints

The building would "block" view and direct access to Milton Bennion Hall from the HPER Mall—main pedestrian circulation path.

The size of the building as a three story building is tremendously out of scale to the surrounding buildings, including Milton Bennion Hall with its new addition.

The building footprint is located directly over an existing high temperature water line that runs north-south. Relocation of this line would add significant costs to the overall construction budget of the project.



SITE OPTION 4 AND 5

Site Option 4 studies a 5 level building (30,000 GSF/level) 150,000 GSF located to the north of Milton Bennion Hall. This Option starts to solve the issue of scale for the new building in regards to the existing surrounding buildings. But the overall footprint is still over-powering to the adjacent Milton Bennion Hall. Therefore, a study was provided to determine what size footprint would "fit" best at this site. Option 5 is a 7 level (21,500 GSF/level), 150,000 GSF building. The footprint of the building is more to scale with the existing surrounding buildings, but the height of 7 levels is not practical for a classroom building, and not supported by the University of Utah's Long Range Development Plan.

Therefore, these studies are included in this document, but eliminate this site as a potential location for the new Campus Learning Center.





ORDER OF MAGNITUDE PROJECT COST ESTIMATE
This opinion of probable cost has been prepared to reflect the anticipated cost of the new Campus Learning Center at the University of Utah.
This document is based on the Preprogrammatic information, including measurement and pricing of quantities wherever information has been provided. Unit rates have been obtained from historical records, along with discussions with contractors. The unit rates provided include labor, material and equipment that reflect current bid costs in the Salt Lake City area. All subcontractor unit rates include the subcontractor's overhead and profit unless otherwise stated.

EXCLUSIONS

The following items are excluded:

Land acquisition costs
Financing charges and expenses
Site related environmental abatement measures
Project phasing costs
Limited/restricted working hours

ITEMS AFFECTING OPINION OF PROBABLE COST

The following items may change the estimated construction costs, and are not limited to:
 Unforeseen or hidden site utility conditions and capacities
 Modifications to the scope of work represented by this opinion of probable costs
 Phasing of the construction
 Non-competitive bid situations

ASSUMPTIONS

The following assumptions have been made:

Construction takes place during normal working hours.

The CM/GC and subcontractors will have sufficient/temporary site staging and site storage within or adjacent to the vicinity of construction.

ESCALATION

This opinion of probable costs reflects current costs. Escalation has been included to represent an anticipated start of construction by January 2008. Escalation has been provided for 2 years at a rate of 6% per year.

ORDER OF MAGNITUDE PROJECT COST ESTIMATE

Size of Building 150,000 SF

Cost Summary	Amount \$	
Construction of new Campus Learning Center Building @ 150,000 GSF Site Costs	\$27,750,000 \$300,000	\$185/SF
Total Construction Costs Based on FY 2006	\$28,050,000	
Escalated Costs to FY 2008 (Assume 6% per year)		\$31,416,000
	2006 Costs	2008 Costs
Soft Costs		
Hazardous Materials	\$0	\$0
Programming (1% of Construction Budget)	\$280,500	\$314,160
Geotechnical Investigation/Surveys (0.03% of Construction Budget)	\$8,415	\$9,425
Design (8% of Construction Budget)	\$2,244,000	\$2,513,280
Design Reimbursables (0.1% of Construction Budget)	\$28,050	\$31,416
Additional Printing Costs (0.07 per SF)	\$10,500	\$10,500
Value Management Costs (0.1% of Construction Budget)	\$28,050	\$31,416
Property Acquisition	\$0	\$0
Furnishings and Equipment		
Furnishing (8% of Construction Budget)	\$2,244,000	\$2,513,280
Equipment (6% of Construction Budget)	\$1,683,000	\$1,884,960
FFE Design Costs (6% of Furnishings + Equipment)	\$235,620	\$263,894
Information and Technology (1.5% of Construction Budget)	\$420,750	\$471,240
Utah Art (1% of Construction Budget)	\$280,500	\$314,160
Testing and Inspection	. ,	,
Building Code Inspection (0.3% of Construction Budget)	\$84,150	\$94,248
Material Testing (0.12% of Construction Budget)	\$33,660	\$37,699
Contingency (5% of Construction Budget)	\$1,402,500	\$1,570,800
Moving/Occupancy (0.03% of Construction Budget)	\$8,415	\$9,425
Builder's Risk Insurance (0.15% of Construction Budget)	\$42,075	\$47,124
Legal Services (0.2% of Construction Budget)	\$56,100	\$62,832
DFCM Management (2% of Construction Budget)	\$561,000	\$628,320
User Fees	\$0	\$0
Commissioning (\$1.33 per SF)	\$199,500	\$199,500
Other Costs	*	4 ,
Signage, Locks and Cylinders (Est.100 doors @ \$60 EA)	\$6,000	\$6,000
Campus Work Orders and Shutdowns	\$15,000	\$15,000
University Security System	\$100,000	\$100,000
Electrical Terminations	\$20,000	\$20,000
Total Soft Costs	\$9,991,785	\$11,148,679
TOTAL PROJECT COSTS	\$38,041,785	\$42,564,679



What are your typical class sizes? What size classrooms are you lacking?

College of Architecture and Planning: The ideal class size for under grads is 60-80. The ideal class

size for graduate level is 25.

College of Business: Large classrooms—MBA with target of 80-120. Business is trying

to go with an increased class size. Business currently has total control of 2 classrooms in the new CRCC building. Business is able to have most of their classes within their own buildings.

College of Education: Largely a graduate school—teach late afternoons and

evenings. An equal distribution of time would be better—smaller class sizes would be better. MBH is mostly 50-65 person classrooms. Education needs classrooms for doctorial seminars and masters—20 or fewer. In order to make improvements for Education, need to influence size of classrooms (to smaller) and time frame for classes (due to grad level times of afternoon and evenings). The types of classrooms that Education needs would not be provided in the new Campus Learning Center—they are too specialized: Computational Labs, Observational Labs, Tutoring Seminar Rooms, Small Group Work Rooms, Video Recording Rooms, Space for Utah Education Network with

broadcasting needs.

College of Fine Arts: Class sizes differ greatly depending on the type of class being

taught. The College of Fine Arts not only has typical lecture classrooms, but is also comprised of many specialty studios. For majors, the typical class size is 15-20 capacity, and for general

education, as high as 100-120 capacity.

College of Health: The College of Health is lacking classrooms in the 80-120 size.

College of Humanities: Class sizes are in all ranges; 21-40, 41-60 and 80-120. But

the biggest need right now seems to be the 21-40 range.

College of Social and Behavioral Science: Difficult to answer because they have adapted to what is

available. The appropriate class size information should come from Space Planning (Regina). Class sizes are in all ranges, 50-100, 100-150, along with a need for seminar rooms of 20.

College of Social Work: The ideal class size is around 40.

What type of classrooms do you need?

The College of Architecture and Planning needs small College of Architecture and Planning: classroom space that is adjacent to their studio spaces. Variety of size and type (flat vs. tiered) is critical. Harvard College of Business: Business style (horseshoe-tiered) is preferred but also require flexible flat floor classrooms. Must have high technology. Need to be wireless as well as have plug ins for laptops. Concerned about wireless---must have a method of "turning it off". (How do you do a closed book electronic exam? How to block access to internet and e-mail?) College of Education: Smaller, seminar style classrooms with high technology. Also need lab spaces for working computer labs/electronics/ experimentation/math education classroom for +30. Education does not expect these types of specialty classrooms in the new Campus Learning Center. Seminar style for group discussions. Provide flat floors and flexible spaces. Also—Education teaches "ADULTS" which require more space per person and higher comfort levels. College of Fine Arts There is a need for various classroom types and size. Smaller classrooms with flat floors along with larger classrooms with tiered/horseshoe shaped floors are needed. They need to be very high tech with ability to present various types of media from digital to 35mm format. High technology classrooms are greatly needed. The larger College of Health size classrooms should be tiered. Some flat floored, flexible spaces would also be needed. Specifically in regards to high technology—Provide the ability for students to give immediate feedback (something at each desk that would allow each student to give immediate feedback to a response or question)—a console of some type at each seat. The new Campus Learning Center classrooms should have the same technology as the new HSEB building, at a minimum. College of Humanities: There is a need for various classroom types and sizes. Smaller classrooms with flat floors along with lager classrooms with tiered/horseshoe shaped floors are needed. They need to be very high tech with ability to download information right from your office. They should be wireless as well as have desktop jacks at each desk top. Provide windows with the ability to darken the room. College of Social and Behavioral Science: The larger sized classrooms should be tiered, high technology classrooms. Beyond that, no special needs. College of Social Work: Flexible, flat-floored classrooms are preferred with high

technology.

Why would you be interested in participating in this type of general classroom building?

College of Architecture and Planning: The new Campus Learning Center would not have a major impact on the College of Architecture and Planning. The classes that are currently held outside of CAP would more than likely still be held outside of CAP due to their special lab needs with specialized software. College of Business: The new Campus Learning Center could provide more of the larger size classrooms. This would be good for introductory Business classes. College of Education: Greatest advantage is the new building will free up space in MBH. The majority of users of MBH are not College of Education. College of Education under-utilizes MBH during prime time. If space in MBH is "freed-up" due to the new Campus Learning Center, then MBH can be renovated for specialty classrooms needed by Education. College of Fine Arts: We have not really been hearing the need for MORE classrooms as much as the need for better, high quality, high technology classrooms. We are interested for the need to improve the quality of classrooms on campus. College of Health: The College of Health is very supportive of this project, very excited that the University is considering this new building. The existing classrooms currently utilized by the College of Health are not the type of QUALITY spaces that are needed. The new Campus Learning Center is something the entire University needs. College of Humanities: There is a dire need for better classrooms on campus. Humanities is very supportive of a new Campus Learning Center. This project is extremely important. Humanities does not want the new Campus Learning Center to de-rail Phase 2 of their overall master plan, and sees this as an opportunity to combine

the Campus Learning Center with their Phase 2 Building.

College of Social and Behavioral Science:

Having a new Campus Learning Center would create the opportunity for OSH to be remodeled. (Right now, OSH is a horrible use of space.) It would also create an opportunity for the Social and Behavioral Sciences Tower to be remodeled.

- 1. The campus and general student population needs this new classroom building.
- 2. Having a new Campus Learning Center will help eliminate the situation of using classrooms that aren't appropriate (whether it be size or type or location).
- 3. A new Campus Learning Center will create opportunities for more interdisciplinary conversations and collaborations.
- 4. By freeing up general classroom space within their own building, they can utilize this existing space and start to move their Centers together into their own space.

College of Social Work:

Would rather keep all of Social Work in their own building.

Where should the building be located?

College of Architecture and Planning:	The old dorm site is quite a distance from the College of Architecture and Planning. This location/distance is not practical. The College of Architecture and Planning needs classroom space that is in the same building and adjacent to their studio spaces. Leaving the building is not practical. Locating the new Campus Learning Center at the old dorm site most likely will not solve Architecture's classroom growth needs. This could be solved by having Architecture utilize the Fine Arts Building space. Locating the new Campus Learning Center adjacent to MBH would be better, but not sure it will fit at that location.
College of Business:	Concerned about the locationwould like to see it more centralized. The old dorm site would be ok if the new building was located as far west on the old dorm site as possible. The open space near MBH would be better if a building could fit there and still allow MBH an addition.
College of Education:	The closer to MBH—the better!! The old dorm site is a good site.
College of Fine Arts:	Locating the new building at the old dorm site is too far from where the majority of Fine Arts students are located, which is mostly on the west side of campus. Some of our general education students are already traveling to OSH for classes, so the old dorm site might not be too bad for our general education students.
College of Health	As long as it is located in central campus—it is good. Old dorm site is preferred due to its relationship to the HPER complex. If you provide a building with high quality, state-of-the-art classrooms, people WILL walk 5-10 minutes to utilize the building.
College of Humanities:	Old dorm site is ideal. Proximity to Humanities Phase 1 and Phase 2 buildings is very important. It needs to be located where most faculty offices are located. Sees no alternative location—and if there is onethis would create a continued "scattering" for Humanities.
College of Social and Behavioral Science:	Anywhere in the old dorm area is finebut the further west, (within the old dorm area), the better. It is important to look at access to a public transit center, as well as the new building's location to the Student Union and the Library.
College of Social Work:	Locating the new building at the old dorm site is too far from Social Work.

<u>Discuss ability to utilize the space in their existing buildings that would potentially be "freed-up" with new general classroom building.</u>

College of Architecture and Planning: A new Campus Learning Center would help "free-up" space

in the old Fine Arts Building. The College of Architecture and Planning is interested in using half of the Fine Arts space for classrooms and the other half for Art and Architecture. (Keep the large auditorium). The new Campus Learning Center would help get "others" out of the existing Architecture Building. There is a need for additional office space and studio space. Will scheduling "give-up" the spaces in College's existing buildings

and allow the Colleges to have control of them?

College of Business:

Business would like to be able to control all of the classrooms in

all of their existing spaces. If other uses were to "free-up" space for Business within their own buildings, this would help Business be more centralized within their existing buildings. Business would like to renovate and modernize their older existing classrooms that are now utilized by other colleges. (Per Business master

plan).

College of Education: The concept of a new Campus Learning Center is a windfall.

The prospect of additional space and "freeing up" classrooms in MBH being used by other colleges will allow Education to better utilize MBH. Education would probably be a minority "stockholder" in the new Campus Learning Center. Education has plans to add a new building adjacent to MBH and to remodel MBH—make the existing spaces more specialized (labs and seminar rooms). Also, by relocating IMS to the new Campus Learning Center, it would "free-up" additional space for Education to use in MBH. Education's new addition would be for:

4 Centers, clinical, research (not a classroom building).

College of Fine Arts:

There would not really be an impact since we only have one classroom and it would probably be maintained as a classroom

for Fine Arts.

College of Health would be able to utilize the existing spaces in their existing buildings better. With the new College

of Health Building, the College of Health will be able to get as many of their departments under 1 roof as possible. More space in HPER would be "freed-up", allowing the College of Health to use their own classroom spaces as lab type spaces.

7.6

College of Humanities:

Humanities has master planned for two additional new buildings. Phase 1 to provide for the relocation of Humanities out of the History Building and smaller seminar classrooms. (Approximately 50,000 GSF). Phase 2 is planned for more offices and additional classrooms (Approximately 70,000 GSF). It would be ideal to link the new Campus Learning Center Building with the Phase 2 Humanities Building. This could be the center piece for undergraduate learning on campus.

College of Social and Behavioral Science:

The College of Social and Behavioral Science only utilizes 50% (approximately) of OSH. They would like to utilize more of OSH and the Social and Behavioral Sciences Tower. Hopefully a new Campus Learning Center would have a considerable impact in freeing up space in both of these buildings. Nobody should "own" the new classrooms in the new Campus Learning Center. But Colleges should "own" the classrooms within their own buildings.

College of Social Work:

The College of Social Work is only interested in the new Campus Learning Center because of its potential to "free-up" space in the College of Social Work Building. They would rather keep all of

Social Work in their own building.

Discuss funding options/State participation

College of Social Work:

College of Architecture and Planning: The new Campus Learning Center must be State funded. The College of Architecture and Planning is not interested in funding the new building. (Impossible for them to participate). College of Business: Business supports 100% State Funding and their top priority right now is fundraising for renovation within their own buildings. The College of Business will not be able to fundraise for new Campus Learning Center if it jeopardizes their fundraising efforts for their own buildings. College of Education: Treat this as a CORE campus building (in regards to funding). This new building needs to be supported by the University. A coalition of Deans needs to support this as a CORE campus building. They feel strong that the building MUST be paid for by the State. The College of Education would be a minority user of the building and not able to contribute to funding since they are trying to raise money for their own new building. College of Fine Arts: The new Campus Learning Center should be State funded. The College of Fine Arts currently has three fund-raising priorities. (New theater/arts classroom building, renovation of the old Fine Arts Auditorium, and creating an expanded gallery space for Art and Art History.) These items will take priority over raising funds for the new campus Learning Center if it is not funded by the state. College of Health: The new Campus Learning Center should be State funded. The College of Health is not only concerned with being required to raise money for construction, but also concerned with the difficulty of having to participate financially to funding the programming and design of the new building. It is not an option for the College of Health to tap into their own fundraising efforts to fund the new Campus Learning Center. The current focus of the College of Health is to raise money for their own College of Health new Building. College of Humanities: The new Campus Learning Center should be State funded. If not fully funded by the State, It would be possible for Humanities to participate in fundraising if the new Campus Learning Center was linked to Phase 2 Humanities Building. If the two buildings were not linked, it would not be possible for Humanities to participate in any fundraising for the new Campus Learning Center. College of Social and Behavioral Science: The new Campus Learning Center should be State funded. The notion for the Colleges to carry all costs is not going to work. They are prepared to do a capital campaign—but with very

The College of Social Work is only interested in participating in

limited funds for the Campus Learning Center. Any "gap" in funding should be covered by Central Administration.

this project if it is 100% State funded.

What other spaces beyond classrooms should be considered for this building?

College of Architecture and Planning With so many disciplines using the new building, it would be

nice to have a gallery space for the Colleges to "advertise"

themselves and their programs.

College of Business: IMS, Food element, break-out rooms, spaces for student

interactions that support unity for the students.

College of Education: IMS, food service element, copy center, computer labs,

bookstore/supplies, break-out rooms for student projects. Make sure you provide space for delivery trucks. Parking should also

be considered a planning issue.

College of Fine Arts: Student oriented spaces and student gathering area. Places for

student to interact.

College of Health: Technology support spaces, student spaces for lounges and

social gatherings, small project rooms and breakout rooms.

College of Humanities: If Campus Learning Center is linked to Phase 2 Humanities,

then the classrooms would largely be in the Campus Learning Center and the student oriented spaces could be in the Phase

2 Humanities Building.

College of Social and Behavioral Science: IMS and service oriented functions, Also—look at providing study

areas and break-out/project rooms for students. The less "other" spaces, the better. Let the students go to the (new) Recreation Center and Student Union for "social" spaces and interactions.

College of Social Work: Student oriented spaces and student gathering area. Places for

student to interact.